

**Notice of Allowability**

Application No.

10/009,627

Examiner

Devesh Khare

Applicant(s)

UEMASU ET AL.

Art Unit

1623

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/25/2005.
2. ☒ The allowed claim(s) is/are 3-5 and 9.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. PCTJP00/09.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 9/13/2005.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

JAMES O. WILSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600

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The amendment after final and remarks received on 08/25/2005 have been entered.

The finality of the Office Action mailed on 3/25/2005 has been withdrawn. Claims 3-5 have been amended. New claim 9 has been added. Claim 8 has been cancelled.

Claims 1-2 and 6-7 have been cancelled by previous amendments.

The rejections of claims 3-5 under 35 U.S.C. 112, second paragraph and 103(a) of the Office Action dated 3/25/2005 have been overcome through applicants' amendment to the claims.

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given by Kurt Briscoe on 09/13/05.

Claim 9, has been replaced as following:

9. (Currently Amended) A continuous and selective inclusion separation method, said method comprising the following steps:

- a) providing a reaction system comprising:
  - i) a first organic phase comprising a raw material comprising at least one compound to be separated;
  - ii) a second organic phase comprising at least one extraction solvent;
  - iii) an aqueous phase comprising at least one inclusion-complexing agent, said aqueous phase simultaneously being in contact with both said first organic phase and said second organic phase so that a first liquid-liquid interface is formed between said first organic phase and said aqueous phase and

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simultaneously a second liquid-liquid interface is formed between said second organic phase and said aqueous phase; and

- iv) a diaphragm provided in said aqueous phase distanced from both said first and second liquid-liquid interfaces;
- b) stirring at least a part of the first organic phase and at least a part of the aqueous phase to form oil droplets comprising **the raw material in the aqueous phase wherein there is formed** at least one inclusion complex comprising a complex of:
  - i) said at least one compound; and
  - ii) said at least one inclusion-complexing agent;
- c) stirring at least a part of the second organic phase and at least a part of the aqueous phase to form oil droplets comprising said at least one compound separated from said at least one inclusion complex;

wherein said diaphragm is permeable to said complex of said at least one compound and said at least one inclusion-complexing agent, and, upon said stirring, said diaphragm prevents said oil droplets **comprising the raw material in the aqueous phase** comprising at least one inclusion complex from mixing with said oil droplets comprising said at least one compound separated from said at least one inclusion complex.

Claims 3-5 and 9 are currently pending in this application.

Claims 3-5 and 9 are allowed.

2. The following is an examiner's statement of reasons for allowance: Claims 3-5 and 9 are drawn to a continuous and selective inclusion separation method comprising a reaction system which has at least two liquid-liquid interfaces between an organic phase of raw material containing at least one compound to be separated; stirring at least a part of the first organic phase and at least a part of the aqueous phase to form oil droplets comprising at least one inclusion complex and an aqueous phase of inclusion-complexing agent provided in said aqueous phase to prevent said two or more

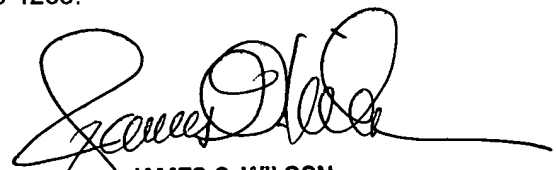
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organic phases in respective oil droplet forms. The respective liquid-liquid interfaces are stirred to entrap at least one compound to be separated into said aqueous phase through formation of at least one inclusion complex of said inclusion-complexing agent and dissociation of said inclusion complex wherein a diaphragm permeable to said aqueous solution of inclusion complexing agent but hardly permeable to organic phases is provided, is not taught or fairly suggested by the prior art of the record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1235.

Devesh Khare, Ph.D., J.D.  
Art Unit 1623  
September 13, 2005



JAMES O. WILSON  
SUPERVISORY PATENT EXAMINER  
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FIG. 1

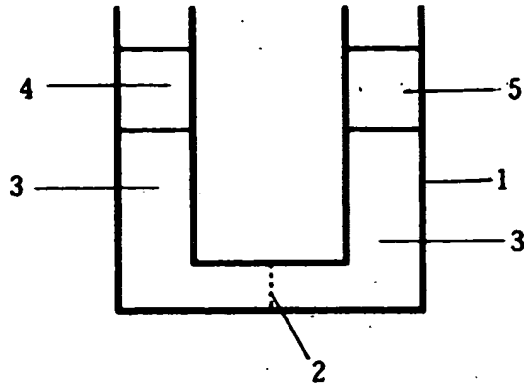
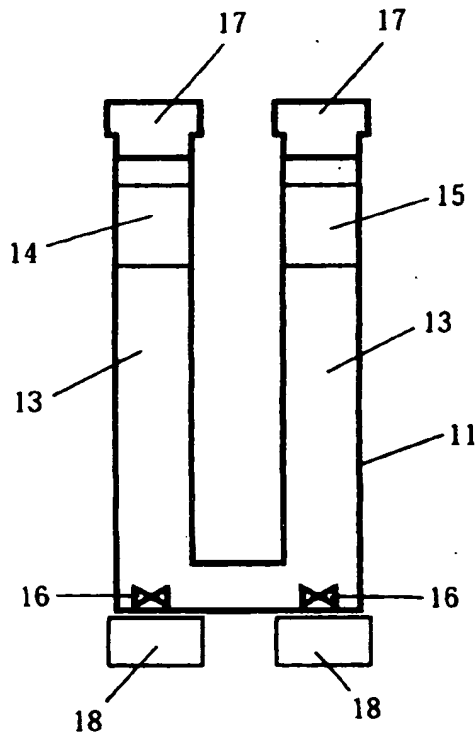


FIG. 2



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FIG. 3

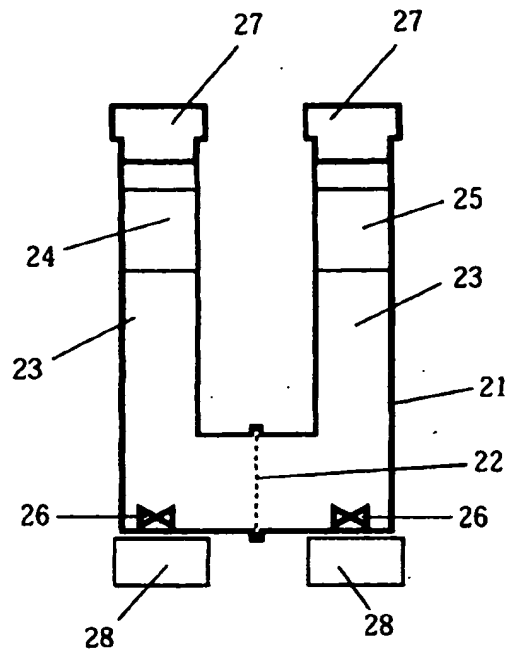
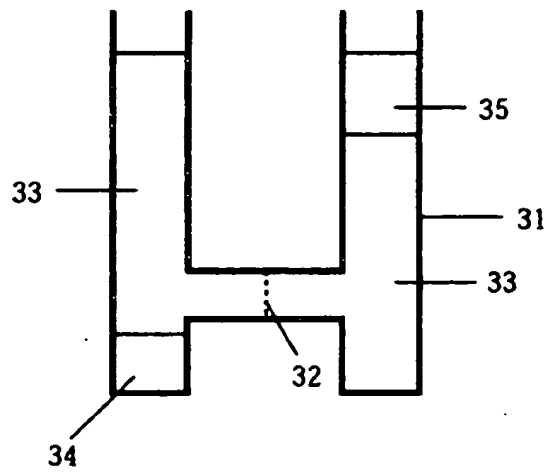


FIG. 4



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FIG. 5

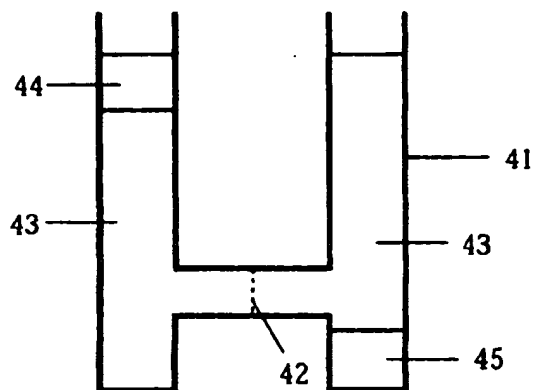
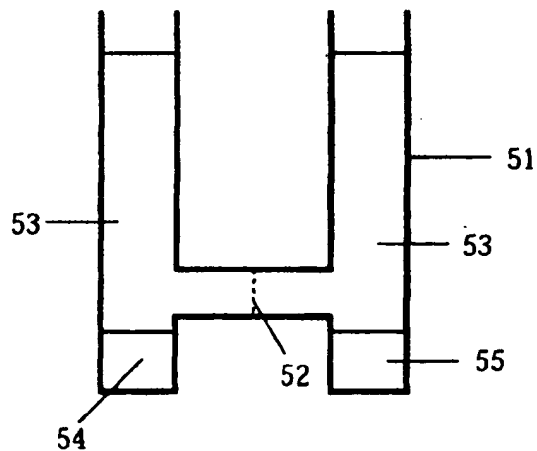


FIG. 6



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